

**METHOD AND SYSTEM FOR LOCATING CELLULAR PHONE NUMBERS****FIELD OF THE INVENTION**

The present invention relates generally to telephone  
5 directory systems, and more specifically, to a method and system  
for locating cellular phone numbers by creating a directory of  
cellular phone users with their corresponding cellular phone  
numbers.

**BACKGROUND OF THE INVENTION**

10 Phone books, operator-assisted information phone calls and  
other directories are used by people to locate the telephone  
number of a specific company or person by looking up their name.  
Phone books and internet directories are generally free,  
15 deriving their revenue from advertising. Operator-assisted  
phone calls, on the other hand, are generally fee-based. In  
either case, phone directories provide an invaluable service,  
furthering commerce and personal relationships by providing  
people with the means with which to communicate with each other.

20 Cellular phones, beepers and internet-connected personal  
digital assistants are becoming increasingly prevalent in  
society. More and more people use cellular phones as their  
primary means for telephonic communication. With people  
enjoying increased personal mobility, the cellular phone is

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becoming the preferred mechanism for maintaining an open line of communication. While the Yellow Pages may include cellular phone numbers or beeper numbers as part of an advertisement, personal directories, such as the White Pages, do not provide the cellular phone numbers of the people listed in the directory. Without a cellular phone directory, acquiring the cellular phone number of a particular individual is a time-consuming process, often requiring a little detective work. The result is a barrier in the ability of people to connect with one another in an increasingly mobile world. A need therefore existed for a method and system for locating cellular phone numbers that is capable of providing public access to a database listing the names of cellular phone users with their corresponding cellular phone numbers.

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TOTAL P.03

### SUMMARY OF THE INVENTION

An object of the present invention is to provide a method and system for providing public access to a database having cellular phone users listed with their corresponding cellular phone numbers. The method may be embodied in a computer program product for performing the method within a general purpose computer.

The foregoing and other objectives, features, and advantages of the invention will be apparent from the following, more particular, description of the preferred embodiment of the invention, as illustrated in the accompanying drawings.

**BRIEF DESCRIPTION OF THE DRAWINGS**

**Figure 1** is a block diagram depicting a cellular phone directory system in which a preferred embodiment of the invention may be practiced.

5 **Figure 2** is a flowchart depicting operation of a cellular phone number directory system in accordance with a preferred embodiment of the invention.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

Referring now to the figures and in particular to **Figure 1**, a networked computer system within which a preferred embodiment of the present invention may be practiced is depicted in a block diagram. To support database functions, a server 10 is coupled to the network via a network connection 11. Also coupled to the network is a personal computer 12 having a processor 16 coupled to a memory 17 for executing program instructions from memory 17. Personal computer 12 is coupled to a graphical display 13 for displaying program output and input devices such as a mouse 15 and a keyboard 14 for receiving user input. The networked computer system may be coupled to a public network such as the Internet, or may be a private network such as the various "intra-nets" that are implemented within corporate offices and other installations requiring secure data communications.

Within memory 17, a program embodying a method in accordance with a preferred embodiment of the present invention is executed by processor 16. Personal computer 12 is included to provide a demonstrative example of a general purpose computer, and it will be understood by those skilled in the art that the techniques of the present invention apply to a variety of other network applications such as dedicated Internet appliances and large mainframe computers having user terminals.

The present invention also applies to personal digital assistants (PDAs), pagers and cellular telephones.

Referring now to **Figure 2**, the system for locating cellular phone numbers of the present invention is depicted in a

5 flowchart. A list of cellular phone users is compiled from at least one service provider (**step 20**). A list of corresponding cellular phone numbers of the cellular phone users is compiled (**step 21**). A database is then created of the cellular phone users and the corresponding cellular phone numbers of the  
10 cellular phone users (**step 22**). When someone using the system provides a user input requesting a cellular phone number of a specific cellular phone user (**step 23**), the database is searched for the name of the specific cellular phone user (**step 24**). If the name of the specific cellular phone user is found (**decision 25**) and the cellular phone number corresponding to the cellular phone user is found (**decision 26**) and the cellular phone number is published (it has not been requested to be unpublished by the cellular phone user) (**decision 27**) the cellular phone number of the requested specific cellular phone user is communicated to  
20 the user (**step 28**), otherwise the user is not provided with the cellular phone number for the specific cellular phone user.

Note that the exemplary system depicted in the flowchart of **Figure 2** may be implemented in a variety of fashions, such as skipping the phone number publication check (**step 27**). For

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example, the database may include only published cellular phone numbers, thus negating the need to determine whether a cellular phone number is published. In addition, the method for locating cellular phone numbers may be embodied in a computer program, a cellular phone directory or some other medium, so long as the database of cellular phone users and corresponding cellular phone numbers is able to be searched by a user.

In the preferred embodiment, the database is organized as an alphabetical directory, according to the names of the cellular phone users, although it should be clearly understood that substantial benefit could be derived from an alternative embodiment of the method for locating cellular phone numbers in which the database is organized by a different format, such as by cellular phone number. The database or alphabetical directory may be published in a phone book, on CD-ROM, in an electronic network (such as the internet), as part of an operator-assisted dial-in service or by some other means which allows a user to conveniently search the database.

Revenue can be generated from the method for locating cellular phone numbers by soliciting advertising in the alphabetical directory. Alternatively, if the database is part of an operator-assisted dial-in service, a fee may be charged per search. The database or alphabetical directory is derived from at least one cellular phone provider, although it should be

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clearly understood that a single database could be based on multiple cellular phone providers, or multiple databases could be used, one for each cellular phone provider. In the preferred embodiment, cellular phone users who do not want to provide public access to their corresponding cellular phone numbers may request that their numbers be unpublished, thus requiring the additional step of tagging cellular phone numbers as unpublished in the database in order to prevent them from being accessed. While, in the preferred embodiment, the method for locating a cellular phone number includes the tagging of cellular phone numbers as unpublished, it should be clearly understood that substantial benefit could be derived from an alternative embodiment of the present invention in which there is no tagging of cellular phone numbers as unpublished.

While the invention has been particularly shown and described with reference to the preferred embodiments thereof, it will be understood by those skilled in the art that the foregoing and other changes in form, and details may be made therein without departing from the spirit and scope of the invention.

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